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AIR FORCE SPACE COMMAND

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Operations

SPACELIFT LAUNCH STRATEGY AND SCHEDULING PROCEDURES

COMPLIANCE WITH THIS PUBLICATION IS MANDATORY

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This instruction implements Air Force Policy Directive (AFPD) 10-12, ***Space***; Air Force Instruction (AFI) 10-1201, ***Space Operations***; and USSPACECOM Policy Directive (UPD) 10-33, ***Space Launch Operations***; and supports the ***Commercial Space Act***. It applies to Headquarters Air Force Space Command (HQ AFSPC), Fourteenth Air Force (SPACEAF), the 21st Space Wing (21 SW), 30th Space Wing (30 SW), 45th Space Wing (45 SW), 50th Space Wing (50 SW), subordinate units and supporting agencies. This instruction does not apply to Air Force Reserve Command or National Guard units. Send comments and suggested improvements on an AF Form 847, ***Recommendation for Change of Publication***, through appropriate channels to HQ AFSPC Spacelift Operations Branch (DOSL), 150 Vandenberg St., Ste 1105, Peterson AFB CO 80914-4200. Organizations at any level may supplement this instruction. Supplements will not lessen the requirements nor change the basic content or intent of this instruction. The reporting requirements in this directive are exempt from report control symbol (RCS) licensing in accordance with AFI 37-124, ***The Information Collections and Reports Program***; ***Collecting Internal, Public, and Interagency Air Force Information Collections.*** Process supplements as shown in AFI 33-360, Volume 1, ***The Air Force Publications Management Program***. Forward one copy of each SPACE AIR FORCE (SPACEAF)/A3 and HQ AFSPC/DOSL.

SUMMARY OF REVISIONS

This instruction has been revised to reflect the transfer of responsibility for conducting the Current Launch Schedule Review Board (CSLRB) from HQ AFSPC to SPACEAF. Additionally, new policies and flowcharts have been added to ensure the 30th and 45th Space Wings' produce an executable launch schedule.

1. General. US spacelift operations provide this Nation with continued access to space through deployment of space based assets supporting Department of Defense (DoD), civil and commercial users worldwide. The Air Force provides the infrastructure required to support DoD, National Reconnaissance

Office (NRO), National Aeronautics and Space Administration (NASA) and commercial spacelift operations. The Air Force spacelift infrastructure consists of launch and range facilities at Vandenberg AFB CA and Cape Canaveral AFS FL. This instruction defines launch strategies supporting current and future Combatant Command (COCOM) satellite systems, organizational responsibilities and spacelift scheduling processes.

2. Operational Launch Strategies. This instruction defines operational launch strategy supporting initial satellite system deployment, satellite constellation sustainment and augmentation of COCOM constellations to include implementing processes and procedures. Current COCOM satellite systems include the Defense Support Program (DSP), Defense Meteorological Satellite Program (DMSP), Global Positioning System (GPS), Defense Satellite Communication System (DSCS), Space Based Infrared Satellite (SBIRS) and Milstar. The matrix at **Attachment 2** captures launch strategies, applicable scenarios, procedures, constraints and applicable systems for cross-reference. ***Note:*** Any government launch requirement resulting in the reallocation of an approved commercial launch opportunity requires the approval of the commercial launch operator or the exercise of a preemption in accordance with the statutory requirements set forth in the Commercial Space Act.

2.1. Launch to Deploy (LTD) . LTD is a strategy defined as a launch, or series of launches, required to initially achieve a satellite system's Designed Operational Capability (DOC). The scenarios using this strategy include initial constellation deployments and research and development launches. The LTD strategy uses a launch-on-schedule approach where launches are planned in the National Launch Forecast (NLF) and Space Launch Manifest (SLM), and executed per the Current Launch Schedule (CLS). Spacecraft and launch vehicle funding and delivery typically drive LTD missions schedules.

2.2. Launch to Sustain (LTS) . LTS is a strategy to replace satellites predicted to fail or that fail abruptly. Predicted and unforeseen satellite failures drive two lower level definitions, LTS-Predicted (LTSP) and LTS-Unforeseen (LTSU).

2.2.1. LTSP is a strategy to replace satellites predicted to fail in order to maintain the constellation's DOC. This strategy uses a launch-on-schedule approach to plan and execute replacement launches for operational constellations. HQ AFSPC Directorate of Operations (DO) forecasts launches in the NLF and SLM based on user inputs and analysis conducted by the HQ AFSPC Launch Services Office (HQ AFSPC/DOSL). Constellation Sustainment Assessment Teams (CSATs) evaluate COCOM constellation health quarterly and recommend to Commander, Space Air Force (COMSPACEAF) and the Current Launch Schedule Review Board (CLSRB), launch slots for the CLS and launch and contingency slots for the SLM.

2.2.2. LTSU is a strategy responding to abrupt satellite failure where a launch is necessary to replenish an operational constellation and maintain DOC. In response to an abrupt failure, Commander in Chief, United States Space Command (USCINCSPACE) requests Operational Considerations (OCs) from SPACEAF, Navy Space Command (NAVSPACE) or Army Space Command (ARSPACE) as required. The components develop OCs necessary to restore the constellation to the DOC. SPACEAF will act as the focal point for OC development and coordination with the 21st, 30th, 45th and 50th Space Wings and COCOM constellation CSATs.

2.3. Launch to Augment (LTA) . LTA is a strategy to increase a constellation's capability above the DOC in response to war, crisis or contingency. This strategy is considered in conjunction with non-space or non-launch alternatives. USCINCSPACE requests OCs from SPACEAF, NAVSPACE or ARSPACE as required. The components develop OCs necessary to appropriately augment the

DOC. SPACEAF will act as the focal point for OC development and coordination with the 21st, 30th, 45th and 50th Space Wings and COCOM constellation CSATs.

3. Responsibilities:

3.1. Air Force Space Command, Directorate of Operations (HQ AFSPC/DO):

3.1.1. Semi-annually update and distribute the NLF via the HQ AFSPC/DOS web page at http://lisn.spacecom.af.mil.

3.1.2. Distribute the SLM daily via the HQ AFSPC/DOS web page.

3.1.3. Review and update daily the CLS via the HQ AFSPC/DOS web page.

3.1.4. Develop and manage an electronic data collection and storage system to allow government agencies electronic access to metric and scheduling data.

3.2. 14th Air Force (SPACEAF):

3.2.1. Host the semiannual CLSRB.

3.2.2. Serve as the focal point for the 30th and 45th Space Wings' scheduling process.

3.2.3. Coordinate with all affected parties to resolve scheduling conflicts for months 19-36 of the SLM.

3.2.4. Identify available launch queues and approve any queue changes in months 19-36 of the SLM.

3.2.5. Assess space wing ability to satisfy launch requirements submitted by customer agencies for missions in months 19-36 of the SLM.

3.2.6. Conduct the quarterly Government Integration Meeting to define launch options and available launch periods.

3.2.7. Annually evaluate launch scheduling timelines to determine if 18 and 36 months adequately meet customer requirements with respect to launch date and launch opportunity commitment.

3.2.8. Ensure COCOM satellite constellations meet warfighter needs.

3.2.9. Develop options for resolving launch schedule conflicts and forward recommendations to the CLSRB for approval, if required.

3.2.10. Ensure Space Wings execute the CLS.

3.2.11. Chair the CSATs and determine CSAT membership.

3.2.12. Brief the requirements for and recommended release of government contingency opportunities at the Government Integration Meeting.

3.2.13. Using the CSAT process, assess the constellation status of GPS, DSP, DMSP, SBIRS and Milstar satellite constellations and provide launch recommendations to the CLSRB.

3.2.14. Act as the Air Force liaison for the DSCS satellite program and provide launch recommendation inputs to the CLSRB.

3.2.15. Brief COCOM constellation status and launch recommendations at the semiannual Government Constellation/Launch Update (Pre-CLSRB).

3.3. Space Wings (30 SW and 45 SW):

3.3.1. Execute the CLS.

3.3.2. Serve as primary interface to launch customers for issues within the CLS.

3.3.3. Receive, de-conflict and schedule executable launch requests and all associated tests and operations for launch customers in support of the CLS. An executable Range schedule is defined as:

3.3.3.1. A schedule that does not conflict with any scheduled Range Maintenance periods, Range Standardization and Automation (RSA) periods or Pad Maintenance periods. To ensure de-confliction with Pad Maintenance periods, the Space Launch Squadrons will provide the most current Pad Maintenance periods to the Range Squadrons.

3.3.3.2. A schedule that does not conflict with any scheduled Range tests.

3.3.3.3. A schedule that does not conflict with scheduled launches from other pads or scheduled launches from the same pad within prescribed time centers for each launch pad see **Table A6.1.** identifies the most current launch centers for each pad.

3.3.3.4. Additionally, a range schedule is not executable if a launch service provider (i.e., Lockheed Martin, NASA) knows in advance that it cannot meet its projected launch date but elects not to relinquish its launch date. The 30th and 45th Range Squadrons (RANS) have approval to remove non-executable launch dates if they reasonably determine that a launch service provider cannot make their projected launch date.

3.3.3.5. A Range Schedule that does not meet the requirements identified in **Figure A6.1.**, constitutes an unexecutable launch schedule.

3.3.3.6. As a command standard, all schedule change requests not submitted with a known conflict in the CLS period will be resolved within 24 hours (1 duty day), 95 percent of the time. This response time is applicable unless conflicts mandate higher headquarters involvement.

3.3.3.7. Collect and report metrics associated with the 24-hour schedule request standard on a quarterly basis to HQ AFSPC/DOSL and SPACEAF/A3. Report total number of changes processed, percentage of changes completed within 24-hours (1 duty day), and reason(s) for changes not processed within the command standard timeframe.

3.3.4. Provide Space Launch Complex (SLC)/Range maintenance periods to be included in the CLS/SLM. Air Force Space Command owned and operated launch complexes (SLC 3E, SLC 4E, SLC 4W, SLC 17A/B, SLC 36A/B and SLC 40) will have at least 30 consecutive maintenance days, with a minimum of 45 scheduled maintenance days each fiscal year. Additionally, the Space Launch Wing commander has the approval authority to change, waive and/or shorten maintenance periods.

3.3.5. Assess space wing support ability to execute launch requirements submitted by customer agencies within the CLS.

3.3.6. Determine and forward launch base capabilities and limitations in accordance with AFSPCI10-202, ***Operational Reporting***.

3.3.7. Forward approved launch dates for all launches (DoD, NRO, Civil, and Commercial) within the CLS to the SPACEAF/AOC.

3.4. Constellation Sustainment Assessment Teams (CSATs):

3.4.1. Forward satellite reconfiguration, constellation repositioning, and launch replenishment recommendations to SPACEAF for review. COMSPACEAF approves reconfiguration and repositioning recommendations to USSPACECOM and issues launch recommendations to the CLSRB.

3.4.2. Prior to the Government Launch Schedule Integration Meeting, review quarterly, the launch requirements on the NLF, SLM and CLS.

3.4.3. Assess the health of COCOM constellations.

3.4.4. Forecast COCOM launch requirements, factor budget constraints, production schedules, range availability and launch base support capability into launch recommendations.

3.4.5. Convene on a contingency basis to develop constellation risk and spacelift supportability assessments in response to LTSU and LTA scenarios.

3.4.6. Forward constellation risk and spacelift supportability assessments to SPACEAF and the CLSRB, in turn, for review and approval or further evaluation.

3.5. Current Launch Schedule Review Board (CLSRB). (Refer To Attachment 3 For Membership):

3.5.1. Convene semiannually to review the SLM, identify and resolve conflicts, approve changes, identify available launch queue slots and publish a new SLM (including the CLS).

3.5.2. Review and approve launch dates for COCOM (LTD and LTSP), NRO, civil, commercial and ballistic missions scheduled to launch from the 30th and 45th Space Wings in the next 18 months.

3.5.3. Review and approve a queue of launch opportunities for months 19 - 36 of the SLM.

3.5.4. Convene on a contingency basis in response to LTSU and LTA scenarios or as needed to address industry launch scheduling concerns.

4. Scheduling Products:

4.1. National Launch Forecast (NLF). In general, AFSPC generates the NLF in March and September of each year based on inputs from an extensive coordination with all US government organizations with space launch requirements and with US commercial space launch service providers. AFSPC maintains accuracy, completeness and credibility of the NLF by requiring all inputs to be approved by a designated official of the sponsoring agency who is accountable for the organization's requirements.

4.1.1. As input into the Program Objective Memorandum (POM) cycle, HQ AFSPC/DO generates the NLF to identify AFSPC satellite launch projections based on constellation mission requirements. Requirements are identified by fiscal year and apply to AFSPC missions only. All other missions listed on the NLF are launch projections based on input from other DoD agencies,

NASA and commercial launch operators. Launches on the NLF represent all potential US launches for eight years beyond the 36 month SLM.

4.2. Space Launch Manifest (SLM). The SLM represents an approved 3-year schedule of executable and planned launch activity from the 30th and 45th Space Wings. The first 18 months represent the executable CLS and months 19 - 36 the reserved queue of government and commercial launch opportunities. The semiannual CLSRB updates, approves and distributes the SLM to all spacelift stakeholders within the US government and the US commercial space launch industry. SPACEAF/A3 maintains and approves changes to months 19 - 36 of the SLM. The SLM serves as direction to the spacelift wings to execute and support launches as queued for the next 36 months. The SLM also reflects available launch queue slots and government contingency opportunities for months 19 - 36. Assignment of a launch queue opportunity does not provide a specific launch date. Once a launch opportunity is approved on the SLM, commercial launch operators may submit requests for a specific launch date when the launch is within 21 months of execution. Space wings will confirm launch dates for commercial launch operations between 18 and 21 months prior to launch. Any conflicts for specific range dates within an authorized launch opportunity will be resolved at the lowest possible level. The CLSRB is the final determining body if the conflict cannot be resolved at a lower level. Requests for available launch queue slots within the 18-month CLS window are approved by the appropriate space wing.

4.3. Current Launch Schedule (CLS). The CLS is a subset of the SLM and establishes firm launch dates for government and commercial missions scheduled from the 30th and 45th Space Wings in the first 18 months of the SLM. The SLM, as signed by COMSPACEAF and endorsed by USSPACECOM/J3, approves the CLS on a semiannual basis; however, the CLS is maintained on a daily basis by the respective wings. The signed CLS serves as direction from COMSPACEAF to execute all COCOM missions and to support all other government, civil and commercial missions identified on the CLS. With the exception of preemption, changes to the CLS are approved by the wing commander or designated official given all affected customers agree with the change. Conflicts not resolved by the wing commander are forwarded to 14 AF/CC for resolution.

5. Scheduling Procedures. Launch scheduling is a dynamic process corporately reviewed semiannually by the CLSRB. The government baseline launch schedule process is divided into three processes: Constellation/Program Assessment, Launch Schedule Assessment, and Government Integration. Upon confirmation of the government baseline schedule, SPACEAF/A3 performs a review of the SLM with commercial launch operators to integrate their launch requirements. ***Note:*** Procedures for Evolved Expendable Launch Vehicle (EELV) scheduling operations are under review and will be added when specific processing and launch operations procedures are defined.

5.1. Constellation/Program Assessment. Government agencies with launch requirements convene independently each quarter to review satellite launch requirements based on constellation health and program readiness. SPACEAF uses the CSAT process and constellation modeling tools to evaluate launch requirements for COCOM programs. NRO, SMC and NASA similarly evaluate their programs to include an assessment of funding and spacecraft readiness for one-of-a-kind research and development and scientific missions.

5.2. Launch Schedule Assessment. Once the spacecraft launch needs are identified, launch scheduling options are evaluated for the next three years to determine any conflicts that may exist between government launch agencies. Missions on Delta launch vehicles are de-conflicted on an individual

basis based on mission priority and launch schedule executability. Missions on Atlas, Titan II and Titan IV launch vehicles use the Multi-Mission process identified below.

5.2.1. SMC Integration and Launch Support Division (CLN) chairs the Multi-Mission. It includes representation from AFSPC, SPACEAF, NRO and SMC booster and satellite System Program Offices (SPO). The process begins with a Government Options Telecon (GOT) held approximately five weeks prior to the Government Integration Meeting. AFSPC and NRO customers identify a variety of Atlas, Titan II and Titan IV launch options for evaluation by the Multi-Mission program. These evaluations identify quick-look launch dates, hardware delivery, resource availability and impact to other missions. The result of each launch option 'run' is presented at the Combined Launch Site Multi-Mission (CLSMM) meeting held two weeks after the GOT. During the CLSMM, launch options for launches at the 30th and 45th Space Wings are independently presented based on priorities determined at the GOT. The CLSMM only considers launch site capability and does not consider potential hardware or crew conflicts at other locations. Once all options are presented, each customer determines its launch option preference(s) to be further evaluated and integrated with the launch options from the opposite space wing at the Integrated Multi-Mission (IMM) meeting.

5.2.2. The IMM meeting is held one week after the CLSMM. All requested launch options with de-conflicted milestone dates and schedule margins are presented at the IMM. Government customers determine which option best meets their requirements based on mission need, funding, operational capability and storage costs. If a conflict exists between government agencies, each option is brought to the Government Integration Meeting with associated risk and cost data for resolution. The government integration team presents the preferred launch option(s) to COMSPACEAF at the government-only Constellation/Launch Update usually held before the CLSRB. At the Constellation/Launch Update meeting, the government baseline launch schedule and release of available launch queue slots is formally approved for use by commercial industry.

5.3. Government Integration. The purpose of the government integration phase is to prioritize and de-conflict government launch requirements for the three-year baseline launch schedule. To accomplish this, a Government Integration Meeting is convened two weeks after the IMM (10 days prior to the CLSRB). The government integration team will review executable launch schedule options and establish a three-year baseline launch schedule including maintenance requirements. Contingency operations will be considered for potential release to commercial industry as available launch queue slots. SPACEAF/A3 will consolidate commercial launch requests before presentation to COMSPACEAF at the government Launch/Constellation Update. Once the DoD baseline launch schedule is approved, SPACEAF/A3 will finalize the 36-month launch schedule for presentation to the CLSRB. Government integration participants include: SPACEAF/A3 (chair), HQ AFSPC/DOS, HQ AFSPC/DOR, NRO, 30 OG/CC, 30 SW/XP, 45 OG/CC, USSPACECOM/J33, SMC/CL and NASA code M-7.

5.4. Commercial Integration:

5.4.1. Each month, commercial launch operators who launch from DoD ranges provide input to SPACEAF/A3 through the wings identifying launch requirements for the next 3 years. Requirements for launches between 19 and 36 months are reviewed for availability of pad capacity. If pad capacity exists and the launch is on contract, HQ AFSPC/DOSL adds the mission to the SLM. Approved commercial launch opportunities on the SLM may begin space wing range de-confliction when the desired launch date comes within 21 months of execution. New launches added

within 18 months of execution are de-conflicted by the appropriate space wing. Space wings will inform 14 AF and HQ AFSPC/DOSL of new requirements added to the CLS once approved.

5.4.2. One week prior to the Government Integration Meeting, SPACEAF/A3 meets with commercial launch operators to verify and integrate their launch requirements for the next 3 years. Representatives from 14 AF, NRO, SMC and NASA are included as necessary to assist in making minor scheduling adjustments to accommodate commercial launch requirements. This process is a quarterly verification of the monthly launch requirements input produced by commercial launch operators and provided to HQ AFSPC/DOS.

5.5. Government Scheduled Launches . CSLRB membership will forward forecasted launch dates for LTD and LTSP missions to HQ AFSPC/DOSL and SPACEAF/A3 for integration into the SLM and NLF. Specific procedures are detailed in the following paragraphs and illustrated in **Attachment 4**.

5.6. Government Contingency Launches . Contingency launches are used to execute LTSU and LTA strategies. Specific procedures are detailed in the following paragraphs and illustrated in **Attachment 5**.

5.6.1. An operational satellite experiencing an unforeseen failure, or a need to augment a system above a constellation's DOC, may require implementation of this launch strategy to recover lost capability or respond to a crisis.

5.6.2. USCINCSPACE identifies the problem and directs SPACEAF, NAVSPACE and ARSPACE (as appropriate) to develop OCs.

5.6.3. SPACEAF develops OCs based on inputs from the user, satellite and spacelift communities (i.e., CSAT, SWs, SMC, warfighting CINCs). COMSPACEAF, COMARSPACE and COMNAVSPACE forward recommended OCs to USCINCSPACE for review.

5.6.4. COMSPACEAF coordinates recommended OCs with the CLSRB. COMSPACEAF forwards results/recommendations to USCINCSPACE and identifies launch execution conflicts or preemption requirements.

5.6.5. USCINCSPACE selects the optimum OC and, if a launch is required, issues orders (as required) to SPACEAF.

5.6.6. Once a launch option is identified, COMSPACEAF directs action according to USCINCSPACE direction via the CLS. If the selected OC requires a launch, COMSPACEAF issues a launch order to the appropriate space wing.

5.6.7. The appropriate space wings initiate launch operations in accordance with the CLS.

GARY R. DYLEWSKI, Brig Gen, USAF
Director of Operations

Attachment 1

GLOSSARY OF REFERENCES AND SUPPORTING INFORMATION

References

Public Law 105-303, ***Commercial Space Act of 1998***

UPD 10-33, ***Space Launch Operations***

AFPD 10-12, ***Space***

AFI 10-1201, ***Space Operations***

Terms

Combatant Command (COCOM)—Nontransferable command authority exercised only by commanders of unified and specified commands. Combatant Command is the authority of a Combatant Commander to perform those functions of command over assigned forces involving organizing and employing commands and forces, assigning tasks, designating objectives, and giving authoritative direction over all aspects of military operations, joint training and logistics necessary to accomplish the missions assigned to the command.

Commercial Launch—Launch activity conducted under the authority of a Department of Transportation (DoT) license and where private capital is at risk and primary financial management responsibility for the activity resides with the private sector.

Component Command—A command consisting of the component commander and all those individuals, units, detachments, organizations and installations under the command that have been assigned to the unified command.

Constellation/Launch Update—A government-only semiannual meeting chaired by COMSPACEAF to review COCOM and NRO constellation status and launch recommendations. Government launch priorities are identified for the next three years including the approval to release government launch opportunities as available launch queue slots. The Constellation/Launch Update is normally held before the CLSRB.

Constellation Sustainment Assessment Team (CSAT)—Team of satellite and launch system experts, procurement agencies, transportation managers and users who collectively evaluate satellite constellation health, user requirements, production schedules, results of failure prediction models, schedule and fiscal constraints and forecast launch requirements necessary to sustain operational constellations.

Current Launch Schedule (CLS)—An 18-month executable launch schedule with de-conflicted dates for government and commercial launches and planned maintenance. Dynamically updated and maintained by the respective space wings and re-baselined semiannually at the CLSRB. The CLS is a subset of the Space Launch Manifest and reflects the most current launch scheduling information.

Current Launch Schedule Review Board (CLSRB)—A semiannual scheduling forum chaired by COMSPACEAF and attended by senior officers, program managers and commercial representatives from the launch community. The purpose of the CLSRB is to review and approve the three-year SLM and identify any conflicts that would limit the ability to execute the 30th and 45th Space Wing launch schedules. The forum also represents an opportunity for senior leaders in the launch community to discuss any issues associated with launch, range or scheduling operations. The CLSRB formally

re-baselines the three-year launch schedule by approving the executable CLS, the launch queues for months 19 - 36 of the SLM and the identification of available launch queue slots.

Designed Operational Capability (DOC)—A system that has completed operational test and evaluation (OT&E) and has been accepted by the specified operational command/agency. The system has completed all developmental tests, has demonstrated performance within specification and is providing the intended service to the user as defined in the system Operational Requirements Document and System Specification.

Developmental Test and Evaluation (DT&E) System—A new or modified system programmed for operational employment but which is currently under the control of the acquiring agency until completion of development tests, demonstrated performance within specification and acceptance by the specified operational command/agency.

Government Launch—A non-commercial launch activity.

National Launch Forecast—An eight year projection of DoD, commercial and civil launches in the US. The forecast is the result of coupling initial launch requirements (facilities and range dates) with launch base capacities, range availability, funding constraints (COCOM only) and acquisition profiles (satellite and booster).

Operational Consideration (OC)—A plan that would accomplish or is related to the accomplishment of a mission. Within the time allowed, an OC includes force and sustainment requirements, logistic and transportation feasibility, and identifies predicted shortfalls. OCs are provided by component commanders and normally include a concept of operations, concept of employment, risk assessment, prioritization and supporting databases if appropriate.

Operational Test and Evaluation (OT&E)—Test and evaluation, by the OT&E command or agency or designated command, under conditions as realistic as possible to demonstrate a system's operational effectiveness and suitability, to identify any operational deficiencies and to identify the need for any modifications.

Preemption—A unilateral action by the government to change the launch queue documented in the SLM to reallocate a launch opportunity committed for commercial use, within the 36-month commitment period, without consent of the launch service contractor or payload owner. Statutory requirements for a preemption are set forth at 49 U.S.C. ß 70109.

Research and Development (R&D) System—A one-of-a-kind system used to demonstrate/ validate new technology but, as designed, is not intended for use in an operational capacity.

Space Launch Manifest—A three year projection of launch plans integrating executable launch dates for the first 18 months (CLS) and a reserved queue of launch opportunities for months 19 - 36. The SLM includes LTD launch dates, forecasted LTSP launches, commercial and civil missions and spacelift operational capabilities and constraints. SPACEAF/A3 maintains months 19 - 36 of the Space Launch Manifest for all DoD, commercial and civil space launch requirements for the 30th and 45th Space Wings.

Spacecraft Deployment—All activities to deliver the payload to its mission orbit configured for operations. Includes all functions required to perform early orbit checkout on a newly launched payload.

Spacelift—The ability to deploy or replace, in a timely manner, critical space systems. Includes launch vehicle, spacecraft, launch facilities and launch range.

Spacelift Operations—All booster, upper stage, satellite, safety, range and facility planning,

preparations and actions necessary to execute pre-launch, launch and post-launch operations in support of national, DoD, civil and commercial payloads.

Abbreviations and Acronyms

AF—Air Force

AFB—Air Force Base

AFI—Air Force Instruction

AFMC—Air Force Materiel Command

AFPD—Air Force Policy Directive

AFPEO—Air Force Program Executive Officer

AFS—Air Force Station

AFSPC—Air Force Space Command

AOC—Air Operations Center

ARSPACE—Army Space Command

CLS—Current Launch Schedule

CLSRB—Current Launch Schedule Review Board

CLSMM—Combined Launch Site Multi-Mission

COCOM—Combatant Command

COMSPACEAF—Commander, SPACEAF (14AF/CC)

CSAT—Constellation Sustainment Assessment Team

DT&E—Developmental Test and Evaluation

DOC—Designed Operational Capability

DoD—Department of Defense

DoT—Department of Transportation

DMSP—Defense Meteorological Satellite Program

DSCS—Defense Satellite Communication System

DSP—Defense Support Program

EELV—Evolved Expendable Launch Vehicle

GOT—Government Options Telecon

GPS—Global Positioning System

IMM—Integrated Multi-Mission

LTA—Launch to Augment

LTD—Launch to Deploy

LTS—Launch to Sustain

LTSP—Launch to Sustain: Predicted

LTSU—Launch to Sustain: Unforeseen

NRO—National Reconnaissance Office

NASA—National Aeronautics and Space Administration

NAVSPACE—Naval Space Command

NLF—National Launch Forecast

OC—Operational Consideration

OT&E—Operational Test and Evaluation

POM—Program Objective Memorandum

RANS—Range Squadron

RSA—Range Standardization and Automation

R&D—Research and Development

SLM—Space Launch Manifest

SMC—Space and Missile Systems Center

SPACEAF—14th Air Force as Component to USSPACECOM

SW—Space Wing

USCINCSPACE—Commander in Chief, United States Space Command

USSPACECOM—United States Space Command

Attachment 2

OPERATIONAL LAUNCH STRATEGIES SUMMARY

Table A2.1. Matrix.

	Launch to Deploy (LTD)	Launch to Sustain (LTS) - Predicted	Launch to Sustain (LTS) - Unforeseen	Launch to Augment (LTA)
Definition	Launches to initially build constellation and achieve DOC.	Launches to replace predicted satellite failures to maintain satellite system DOC.	Launches to replace unforeseen failures to maintain satellite system DOC.	Launches to increase operational capability.
Scenario	Scheduled approach used to plan and execute launches to initially deploy satellite systems.	Scheduled approach used to plan and execute replacement launches for operational constellations.	Contingency response used to execute replacement launches for operational constellations only when unpredicted failure occurs requiring immediate replacement.	Contingency response to provide increased capability during crisis or contingency. LTA considered in con-junction with non-space and non-launch alternatives.
Procedure	Mission scheduled per the SLM and executed according to the CLSRB approved CLS.	Launches are scheduled on the SLM based on constellation requirements and projected satellite failure. As the launch date approaches the CSAT forwards a sustainment assessment to SPACEAF. SPACEAF delivers a launch recommendation to the CLSRB for approval.	USCINCSPACE issues orders to components to generate OCs. SPACEAF polls launch community (AFSPC, SMC, CSAT) and forwards OCs to USCINCSPACE. USCINCSPACE coords OCs with the CLSRB, selects an OCs and issues orders as required.	USCINCSPACE issues orders to components to generate OCs. SPACEAF polls launch community (AFSPC, SMC, CSAT) and forwards OCs to USCINCSPACE. USCINCSPACE coords OCs with the CLSRB, selects an OCs and issues orders as required.
Constraints	Launch schedule subject to integrity of launch vehicle and satellite production timeline.	First spacecraft of new block may be launched on schedule ahead of need. Schedule flexibility limited by other pad users.	Limited launch opportunities, funding availability, hardware availability, contracts. Lack of responsive launch systems.	Limited launch opportunities, funding availability, hardware availability, contracts. Lack of responsive launch systems.

Applicable Systems (examples)	UHF F/O, Milstar, DT&E, NASA R&D, SBIRS, future systems	GPS, DSCS, DMSP, DSP, SBIRS	GPS, DSCS, DMSP, DSP, SBIRS	GPS, DSCS, DMSP, DSP, SBIRS

Attachment 3

CURRENT LAUNCH SCHEDULE REVIEW BOARD (CLSRB) MEMBERSHIP

COMSPACEAF - Chair

SMC/CC

USSPACECOM/UD/J3

AFPEO/SP

HQ AFSPC/DO

21 SW/CC

30 SW/CC

45 SW/CC

50 SW/CC

NRO

DoT

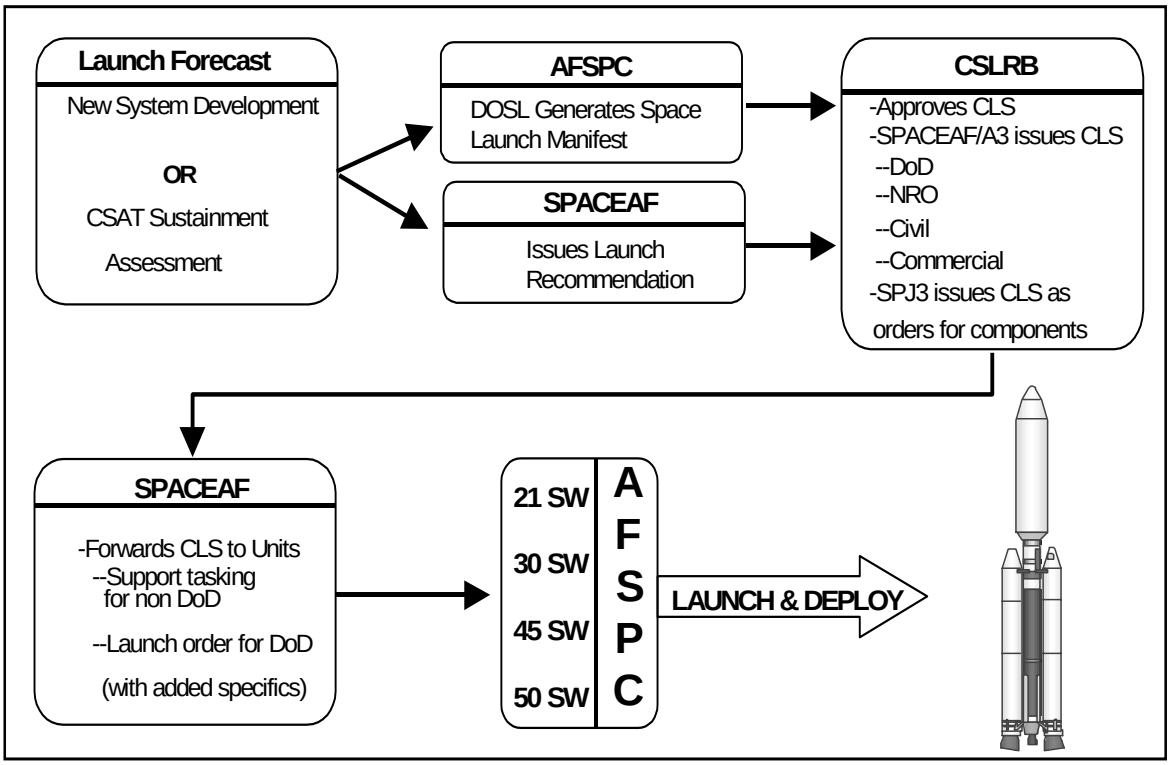
NASA

Commercial launch operators with launches scheduled during review period

Attachment 4

SCHEDULED LAUNCH PROCEDURES

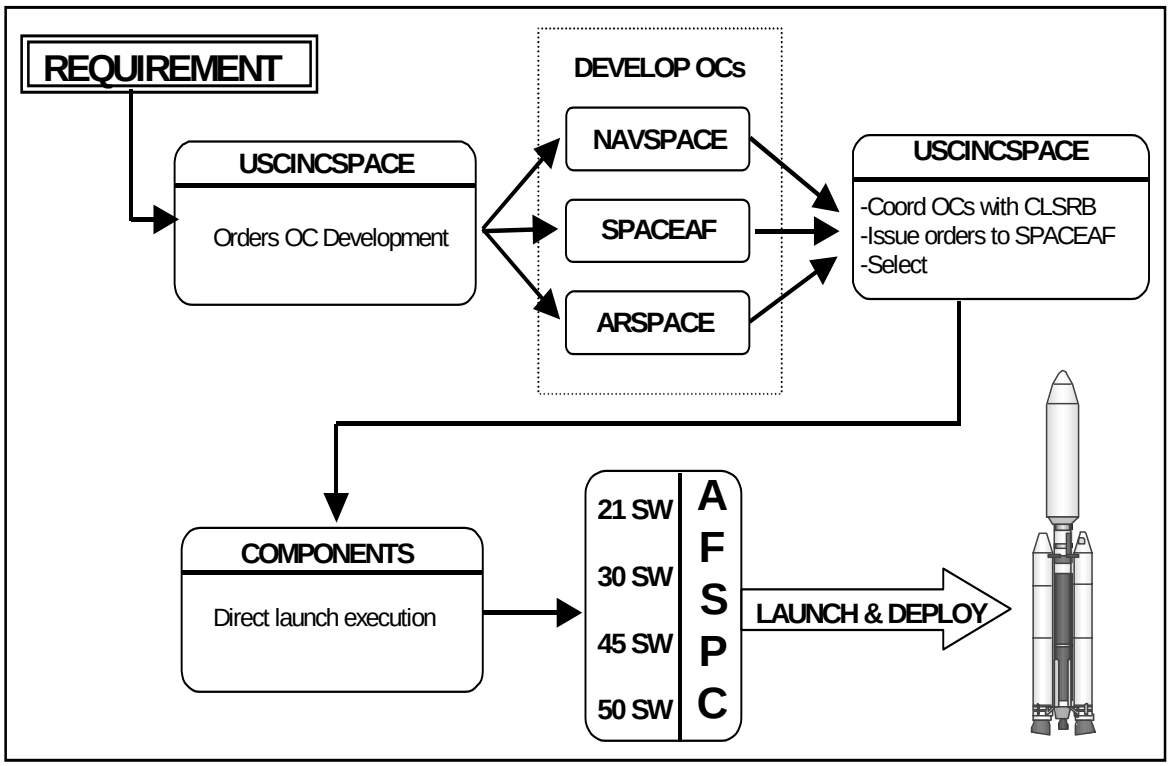
Figure A4.1. Scheduled Procedures.



Attachment 5

CONTINGENCY LAUNCH PROCEDURES

Figure A5.1. Contingency Procedures.



Attachment 6

SPACE LAUNCH COMPLEX LAUNCH CENTERS

Table A6.1. Space Launch Complex launch centers (Minimum number of days between launches from each complex). ***Note:*** The days between launches for each complex are approximate numbers and can be adjusted to the left or right as needed. The days are provided to allow reasonable time between launches from each pad.

SPACE LAUNCH COMPLEX	DAYS BETWEEN LAUNCHES
SLC – 36A/B	35
SLC – 40	180
SLC – 17A/B	30
SLC – 4W	90
SLC – 4E	180
SLC – 2W	30
SLC – 3E	60
576-E	42
SLC-6	67

Figure A6.1. Range Scheduling Procedures.